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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,611	12/23/2004	Jehan Vanpoperynghe	034299-612	9208
7590 Thelen Reid & Priest PO Box 640640 San Jose, CA 95164-0640		01/17/2008	EXAMINER LEE, BENNY T	
			ART UNIT 2817	PAPER NUMBER
			MAIL DATE 01/17/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/519,611	Applicant(s) VANPOPERYNGHE ET AL.	
	Examiner Benny Lee	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 and 3 is/are allowed.
- 6) ☒ Claim(s) 5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 December 2007 has been entered.

The disclosure is objected to because of the following informalities: Note that in view of the added drawing features to Figs. 3A & 3B, a further description of these added drawing features need to be provided in the specification description of Figs. 3A & 3B. Appropriate correction is required.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the corrugated plate (i.e. claim 5) and the insert of adjustable length (i.e. claim 6), respectively must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The detail description needs a corresponding description of the "corrugated plate", such as recited in claim 5.

Claims 5, 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 5, it is noted that the specification does not provide an adequate written description of the "corrugated plate", such that one skilled in the art would not have been enabled to make and use the invention, as intended by applicants', without resorting to undue experimentation. The only description pertaining to the "corrugated plate" is provided in the summary of the invention. There does not appear to be any corresponding description of the "corrugated plate" in the detail description, thereby causing the one skilled in the art to have to resort to undue experimentation to make and use the invention, as intended by applicants'.

Regarding claim 6, it is noted that the specification does not provide an adequate written description of the "insert with adjustable length", such that one skilled in the art would not have been enabled to make and use the invention, as intended by applicants', without resorting to

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undue experimentation, It should be noted that the only description pertaining to the “insert” is the description of a “displacement of a second tube within tube 3”. However, such a description appears to inadequate to describe the placement and operation of such a structure, as to cause one skilled in the art to have to resort to undue experimentation to make and use the invention, as intended by applicants’.

The following claims have been found objectionable for reasons set forth below:

In claim 2, 3, 5, line 3 of each claim, and claim 6, line 4: note that a --,-- should be inserted after “F” in each claim for grammatical correctness.

In claim 2, lines 9, 15; claim 3, lines 6, 7, 9, 16; claim 5, lines 7, 8; claim 6, lines 7, 8: note that --set of-- should be inserted between each occurrence of “the” & “rings” for consistency in claim terminology.

In claim 2, lines 11, 14, 15, note that --at least one-- should be inserted prior to each occurrence of “lead screw” for consistency in claim terminology; line 12, note that “a nut to a ring” should be rephrased as --a respective one of the set of nuts to a corresponding one of the set of rings-- for an appropriate characterization.

In claim 3, lines 11, 15, 16, note that --of the set of rings-- should be inserted after each occurrence of “corresponding ring” for consistency in claim terminology; lines 12, 14, note that --of the one set of pins-- should be inserted after each occurrence of “pins” for consistency in claim terminology; line 12, note that “a ring” should be rephrased as --an outer ring-- for consistency in claim terminology; line 15, note that --of the set of rings-- should be inserted after “different rings” for consistency in claim terminology.

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In claim 5, line 6, note that "is made of" should be rewritten as --comprises a-- for an appropriate characterization.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Woods (of record).

Woods discloses an electron beam tube (i.e. a velocity modulated tube 11, such as a klystron) comprising: at least two tunable cavities having movable tuning flanges (e.g. 46, 49), which correspond to the "rings" recited in applicants' claims. Note that the flanges or "rings" are associated with respective ones of the cavities in the electron beam tube and are mechanically movable (e.g. via adjusting screw 33), such that the respective tuning flanges or "rings" establish a periodic relationship with respect to fixed flange or ring (44) and thus provide a varying frequency for the respective tunable cavities. Additionally, note that flange (49) includes a protrusion extending perpendicular to the flange, which corresponds to the claimed "insert" (as far as such a limitation is understood). Moreover, note that the "insert" is deemed to have an "adjustable length" by virtue of it's attachment to the movable flange (49).

Claim 5 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Liepelt.

Liepelt discloses a microwave tube (i.e. multi-cavity klystron) comprising: a resonator (e.g. 6) defined at least by end faces (8, 9). Note that the end faces (8, 9) are attached to a "set of rings" (i.e. sections of diaphragm-like annular disks 11, 13; 12, 14; connection rings 19, 20)

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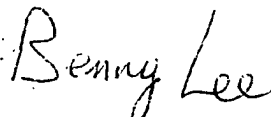
defining "corrugated plates", which are arranged periodically (i.e. by virtue of the plural cavities of the multi-cavity klystron) within the microwave tube. In operation, note that mechanical means (e.g. forks 28, 29 in Fig. 2) can mechanically move the resonator space (6) along a direction (i.e. 21) and correspondingly causes the corrugated annular diaphragms or plates (i.e. 11, 13, 19; 12, 14, 20) attached to end faces (8, 9) to become deformed and thus be displaced along direction (21), to thereby provide frequency tuning for the resonator space (6).

Applicant's arguments with respect to claims 1, 4 have been considered but are moot in view of the new grounds of rejection.

Claims 2, 3 are allowable over the prior art of record.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

B. Lee


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817